TRANSFORMING QUERY RESULTS INTO HIERARCHICAL INFORMATION

CROSS-REFERENCE TO RELATED APPLICATIONS

09/528,078

[0001] The present application is a divisional of U.S. application Serial No. ~~09/528,079~~, filed March 17, 2000. The disclosure of the parent application is incorporated herein by reference.

FIELD OF THE INVENTION

[0002] This invention relates to data processing, and more particularly to the use of hierarchical information in the context of transformational systems.

BACKGROUND OF THE INVENTION

[0003] Two trends in networked computing are the increasing use hierarchical information systems, such as the eXtensible Markup Language (XML) for information exchange among networked applications and the continuing and increasing use of relational database systems for managing businesses. These trends are likely to continue and accelerate in the future.

[0004] XML is widely used for exchanging hierarchical information in networked systems, such as local area networks, wide area networks, and the internet. XML has several characteristics that make it an attractive language for exchanging information among networked applications. First, XML is a text based language, so XML data streams are easily transported across systems with incompatible binary formats. Second, since information represented in XML is organized hierarchically, it allows a user to easily understand the relationships among the different types of information contained in an XML data stream.

[0005] Relational database systems provide access to a significant percentage of all the information stored in modern business information processing systems. Relational database systems also allow users of the data to easily access and process the information stored in the systems from both local and remote locations. Unfortunately, database queries executed against a relational database return information in the form of rowsets encoded either in binary or in nonstandard character format.

[0006] For these and other reasons there is a need for the present invention.